

Sustainability (SUS)

SUS 151 Introduction to Sustainability **3.0 SH** []

An introduction to the basic principles (e.g. triple bottom line, ecological footprint, systems thinking) underlying the topic of sustainability. Students explore how sustainability relates to their lives and values, and demonstrate knowledge of sustainable practices and their effects on the economy, the environment, and social equity. Guest lecturers provide views of contemporary issues from a multi-disciplinary approach.

SUS 190 Sustainable Food Systems **3.0 SH** []

An introduction to the resilience, sustainability and equity of local and global food systems. Students examine relevant theories within the sector, using a systems approach to discuss achievements, challenges and trends. Students interact with farmers, vendors and chefs, consider how their own decisions and actions influence food systems, and explore how innovative solutions might be scaled for greater impact.

SUS 240 Modern Climate Change **3.0 SH** [GESN]

This course introduces the science, economics, and policy of modern climate change. Students will understand the drivers of climate change cycles and how they affect human society and ecological systems, analyze the impacts and costs of climate change, define solutions for mitigation and adaptation, engage in informed discussions of public policy, and communicate effectively about these issues.

Prerequisite: This course is suitable for non-science majors, but it is expected that students have knowledge of algebra and either high-school level chemistry or physics.

SUS 250 Energy and Living Systems **3.0 SH** []

In this course students begin to think about the mechanical and living systems in everyday life and how to make them more sustainable. The course focuses on air, water, and energy flows; the properties of different structures and building materials; the importance of insulation and other conservation measures; and the role of 'green building' certifications, such as LEED and LBC.

SUS 260 Sustainable Development **3.0 SH** []

In this course students explore the interdisciplinary field of sustainable development. Drawing from the social, policy, and natural sciences, this course explores how the world economy can continue to develop in ways that are socially inclusive and environmentally sustainable. This course offers a broad overview of the key challenges and potential solutions to achieve sustainable development in the 21st century.

Prerequisite: GLBS 225 or SUS 151.

SUS 280 Topics in Sustainability **1.0-4.0 SH** []

Offered when regular or visiting faculty are available to work with students on advanced topics in sustainability. May be offered on Principia abroad. The title will be extended to describe the current topic or region. May be repeated more than once for a maximum of 8 SH, provided the topics differ.

SUS 310 Environ Decision Analysis **3.0 SH** []

Course content covers decision analysis methods - in particular cost-benefit analysis, life cycle assessment, and risk management - that are widely used in business, the environmental field, and by regulatory agencies. For each method students will explore the theoretical underpinnings, appropriate applications, and the benefits and drawbacks. Both qualitative and quantitative methods are used.

Class Level Restriction: Junior and Senior only.

SUS 340 Climate Science Seminar **1.0 SH** []

Seminar examines the science of modern climate change, including the drivers of climate change cycles and how they affect human society and ecological systems. Emphasis is on reading scientific literature with understanding, including interpreting charts and graphs for a broad range of physical sciences, and exploring the role of uncertainty in interpreting scientific data and forging policy. May be repeated.

Prerequisite: SUS 240.

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SUS 395 Sustainability Internship 1.0-3.0 SH []

The issue of sustainability is one of the most theoretically and practically complex questions of our time. Experiential learning outside the classroom provides an opportunity to gain hands-on experience with corporations, organizations, and agencies successfully acting as change agents in solving problems related to local, national, and global sustainability. May be taken three times up to six semester hours.

SUS 401 Sustainability Project 1.0-3.0 SH []

The project serves to culminate the minor in sustainability. Projects are designed under faculty supervision in accordance with student qualifications and interests. May include multidisciplinary research, internships, case studies, field work, or campus projects. May receive a star (*) grade if the project spans more than one semester, may be repeated up to a maximum of 6 SH.

Class Level Restriction: Junior and Senior only.

SUS 410 Capstone Seminar 1.0 SH []

This course is designed to assist sustainability majors in the development of their capstone project. Weekly class activities may include presentations from a research librarian, discussions with Sustainability faculty about project design and methodology, preparation of an annotated bibliography, or coaching on presentation skills.

Class Level Restriction: Junior and Senior only.

Field of Study Restrictions: Sustainability Majors only.

SUS 411 Capstone 2.0-5.0 SH []

A selected topic culminates the major and provides students the opportunity for survey, investigation, research, or creative activity that synthesizes and extends classroom material. May include multidisciplinary research, case studies, field work, or campus projects. May receive a star (*) grade if the project spans more than one semester, may be repeated up to a maximum of 10 SH.

Prerequisite: SUS 410, may be taken concurrently.

Class Level Restriction: Junior and Senior only.

Field of Study Restrictions: Sustainability Majors only.